

# Notice of Allowability

Application No.

09/843,058

Examiner

Viet Q. Le

Applicant(s)

CARLSON ET AL.

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/22/2005.
2. ☒ The allowed claim(s) is/are 4-6, 11-21, 25-27, 32-42, 44-50 and 53-67.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jack P. Friedman on July 05, 2005 and on July 06, 2005.

The application has been amended as follows:

#### **In The Claims**

Claims 2-3, 8-10, 23-24, 29-31 & 52 are cancelled.

#### ***Allowable Subject Matter***

2. Claims 4-6, 11-21, 25-27, 32-42, 44-50 & 53-67 are allowed.

The following is a statement of reasons for the indication of allowable:

Regarding independent claims 4 & 25, the prior art does not disclose or fairly suggest wherein an apparatus having the following features of the invention:

Wherein the acknowledgement adjuster:

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Determines a time period selected from the group consisting of a first time period and a second time period, the first time period being a time period between when a last ACK for a previous packet was sent and when a current packet is received, the second time period being a time period between when the last ACK was sent and when a data packet is to be sent in return to a previous packet, and

If the time period is less than a predetermined time period:

Discontinues sending an ACK after each received packet; and

Sends a delayed ACK after at least one received packet.

Regarding independent claims 11, 32 & 55, the prior art does not disclose or fairly suggest wherein an apparatus having the following features of the invention:

The acknowledgment adjuster adjusting use of delayed ACKS based on time delays which occur in the TCP traffic such that if the use of delayed ACKS is disabled and the time delay between the last acknowledgement time and receipt of a subsequent data packet is less than a predetermined time period, use of delayed ACKS is enabled;  
or

If the use of delayed ACKS is disabled and the time delay between the last acknowledge time and a reply to the first data packet with a response data packet is less than a predetermined time period, use of delayed ACKS is enabled; or

If the use of delayed ACKS is enabled and the delay in sending an ACK in response to a first data packet exceeds a predetermined time period, use of delayed ACKS is disabled.

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Regarding independent claim 47, the prior art does not disclose or fairly suggest wherein an apparatus having the following features of the invention:

Wherein the acknowledge adjuster program:

Monitors whether an ACK was not sent during a predetermined time period after a first packet was received; and

Sends an ACK after each received packet if an ACK was not sent during a predetermined time period after a first packet was received.

Regarding independent claim 48, the prior art does not disclose or fairly suggest wherein an apparatus having the following features of the invention:

Wherein the acknowledge adjuster program:

Determines a time period selected from the group consisting of a first time period and a second time period. The first time period being a time period between when a last ACK for a previous packet was sent and when a current packet is received. The second time period being a time period between when a last ACK was-sent and when a data packet is to be sent in return to a previous packet; and

If the time period is less than a predetermined time period:

Discontinues sending an ACK after each received packet; and

Sends a delayed ACK after at least one received packet.

It is noted that the closest prior art, Tam (U.S. 6,622,172), shows a dynamically delayed acknowledgement transmission system. However, Tam fails to disclose the underlined limitations as described above.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Q. Le whose telephone number is 571-272-2246. The examiner can normally be reached on 8 AM -5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VL

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2667  
7/11/05